

## The Secret to Launching Antennas Over Very High Trees

Having spent Saturday re-arranging antennas and repairing antenna damage from winter storms, it seems like a good time to talk about a classic Amateur antenna problem - hoisting lines over trees. The basic dipole or inverted vee antenna is probably the most common antenna in use throughout the world. To install a dipole antenna almost always requires running a rope over at least one high support and then pulling on the rope to lift the end of the dipole up into the air. But how do you get that rope up over that darned tree branch?

The old standby method has always been to tie a rope (such as 1/8" (3 mm) nylon mesh) around a rock and heave it up and over the tree branch. This certainly works - but for most people you'll only be able to launch your line over a 6 meter to 10 meter high mark. To get a line above that point requires a different method.

Another reliable standby is to sling shot the rock up over the branch, rather than trying to throw it. To do this, hold the line about 2 to 3 feet away from the rock and swing the rock around in circle in the vertical plane. Let go of the line as the rock is headed skyward. Still, the best I've seen is about a 30 foot (10 m) height. And this technique tends to be wildly out of control! It will take a few throws before you even get close the tree, let alone the targeted branch!

Some hams have had success using a bow and arrow. This method is good and precise - if you have access to a bow and you have some experience with archery. Tie a fishing line to the arrow and you'll probably succeed in launching a line at least 60 feet (20 m) into the air. Make sure the down range landing zone is clear of spectators!

The best method that I've used is to buy a heavy duty sling shot of the type used for hunting or target practice by adults (not a kid's toy). This unit has an arm brace and elastic surgical tubing to give your launch a good liftoff. You can use a sling shot "as

is" and tie some fishing line to a fishing weight for your launch. I strongly recommend an oval shaped fishing weight about 2 cm in length. I've tried using other shapes but the aerodynamic drag of non-rounded shapes will greatly reduce your range. Before you launch your line, grab a handful of small stones and practice, practice, practice your launches until you feel confident in your ability. Try to avoid placing people and windows in your landing zone!

The final step to achieve superb launching is to modify the sling shot with an archery tracking cartridge. Bow hunters sometimes target prey that runs off rapidly when being hit with an arrow. In order to track prey that may run for 500 meters, the archer ties a line to the arrow and lets the line spool out as the animal runs away. The archer then follows the line to the prey. To meet this tracking need, archery manufacturers produce a "tracking cartridge" which contains about 800 meters of strong, thin, lightweight line similar to fishing line (See Photo 1) . 800 meters is sufficient for perhaps 6 to 10 launches depending upon your antenna requirements. You can buy replacement cartridges when you use up all the line.



Photo tracking

1: The cartridge.

The tracking cartridge mounts directly on to the bow. In our case, the tracking cartridge can be mounted onto the sling shot handle (See Photo 2). This requires drilling a hole through the handle to accommodate the cartridge mount. In use, you don't have to worry about your fishing line getting tangled - the tracking

*(Continued on page 6)*





Who is this J.C. Penny cover girl, and what is her connection to CARC? Stay tuned....

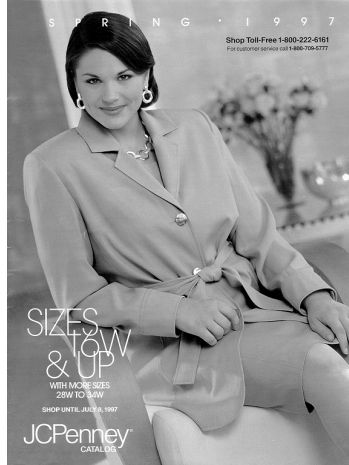
Ed, WA2MYZ, has passed his extra class exam. Congratulations Ed! Now if Ed can do it, you would think a certain engineer who works for a major telephone equipment manufacturer could do the same.

Bob, K4HA, is the proud papa of a new mobile rig, a dual-band Yaesu FT8500. Bob will be leaving soon for a two-week training course to learn how to program it.

Congratulations to Sarah, daughter of Glynn, K4RKI, on her graduation from Cary High. Sarah will be attending Western Carolina University in the fall. Way to go Sarah!

Lee, second harmonic of KM4LB graduated from Cary High and by the time you read this he will be sunning himself on the beaches of Paris Island.

NOT! (Lee has enlisted in the Marines



and will be swatting sand fleas more than sunning!) Good Luck Lee!

Amy, KM4LB's first harmonic is off to camp too, just not boot camp. She has signed on as the activities director at Camp Oak Hill near Henderson. It will be a close competition to see if Amy or Lee has the worse food this summer!

Our cover girl is Karen Decker, daughter of former CARC member Dennis Decker KB4TYM.

Dennis, an employee of the National Weather Service, is known to most of us as our first SKYWARN instructor in years gone by. Dennis and his family moved to Melbourne Florida some years ago.

Karen, who was featured on the TV show Extra!, has taken a year off from school to pursue her career. You are most likely to run into her on a Miami to New York flight between photo shoots.

And now that we have your attention! George Lemons of the National Weather Service, (who followed Dennis as our SkyWarn instructor), will present a program at the September 25 CARC meeting. Plan to attend...NWS always puts on a great show!

See Ya! Jan

## Quotations

*Never explain. Your friends don't need it and your enemies won't believe it.*

— anonymous

*Too bad all the people that know how to run this country are busy cutting hair and driving taxicabs.*

— anonymous

*It's easy to find people who can't count to ten. They're in front of you in the super-market express lane.*

— anonymous

HE: People think it must be fun to be super genius, but they just don't realize how hard it is to put up with the lesser lights of the world.

SHE: Isn't the zipper on your pants supposed to be in front?

*The one function that TV news performs well is that when there is no news we give it to you with the same emphasis as if there were.*

— David Brinkley

via the ARNS

## TomDoligalski - N9CGD

For most hams, participation in field day brings renewed interest in the hobby. In many cases this is accompanied by an increased desire to upgrade ones license (or for those without a license, a desire to get an entry-level ticket). This months internet column is about web sites that will help you get that first ticket or upgrade your current one.

Almost a mandatory site, the AA9PW ham radio page at <http://www.biochem.mcw.edu/Postdocs/Simon/radio/exam.html> is a well-constructed web site that will produce practice examinations, including figures. Of course, the questions are drawn directly from the official question pools, so if you do well on these practice exams you can be confident about the real thing. The site also features a Morse code practice test feature.

Speaking of Morse code, CW is sometimes a difficult barrier to upgrading. If that's the case for you, head on over to <http://www.qrz.com/files/Morse/index.html> where there are dozens of shareware Morse code training programs available

## Ham Radio Internet

for download. A few hours a day for a week or so will help you quickly to get that ticket!

Another time-honored method to build ones code speed is to copy the Morse code training sessions from W1AW. The difficulty here is to determine when these occur and on what frequency. If you aim your browser at <http://www.arrl.org/W1AW.html> you will find all the information you need about when and where to listen to receive this valuable resource.

The W1AW site also features an important resource for those who wish to upgrade or get that first ticket - an exam listing! The URL is [http://www.arrl.org/arrl\\_vec/exam\\_search.html](http://www.arrl.org/arrl_vec/exam_search.html) and you can search by zip code to find exams in your area - at least those administered by the ARRL. The W5YI VEC site at <http://w5yi.w5yi.org/w5yi/part97tc.html> does not feature an online lookup for exam locations and times.

## Ten Tec 6 Meter Transverter

I just did the final testing on the Ten Tec 1208 6 meter kit. First my hats off to Ten Tec for an outstanding kit. The manual was printed in such a way that anyone could understand it. They obviously put a lot of work into this book. Reminds me of the old Heath kits. During assembly not only do they tell you the resistor value, they also tell you what stripes to look for.

On the board they have printed the location of the components. If the instructions and watch the position of the components on the board you can't go wrong.

The transverter operates on 14.000mhz band. They have good reasons for doing so. So before you go rolling your eyes operate the radio first. The unit takes a 5 watt input. However with a simple resistor change your input can vary between a 1/2w and 10watts input.

I was able to get 10w output from my unit. That's all the power that I use. Along with my Cushcraft 3 element antenna at 30 feet (10 meters). I worked W9ES down in DM22 last night. He was using the same power into a portable ground plane antenna. Without an additional preamp the signals were still very good. Some signals were reaching 20 over 9!

You don't need any extra tools to build it other than what you might have around the house, Voltage-Ohm-Meter (VOM), soldering pencil, cordless phone, etc...

In closing I really like my new transverter for 6 meters. Six years ago you could not have gotten me into vhf stuff. Now 3 of 4 antennas I have are vhf or uhf. The tranverter was only \$95.00 form Ten Tec. So with my \$79.00 3 element beam from Burqharts, I have less than \$200.00 in my whole system!! The wife really likes that part.

Good Luck!

(editor's note: CARC member Charles, KE4CDI, built Ten Tec's 2m-to-6m version of this converter and was similarly impressed with the kit.) Ten Tec is expanding its kit offerings and would like to hear your ideas for a kit. To send them an idea or to order a catalog, write:

T-Kits  
1185 Dolly Parton Parkway  
Sevierville, TN 37862-3710

Well another year has gone by and we get nearer to the great summer contest, Field Day . This year we are at Bond Park in Cary. This will be a good opportunity to get out and meet the group as well as do some operating. This is a great site. Plenty of space to roam around. Bring the family and the tent! Fishing, biking, and just plain relaxing, whatever suits your fancy can be had at this site.

This year we would like to have everyone bring their HT's tuned to 144.44 Mhz. This will make the communications easier when we need to make announcements etc. Also bring your flashlights.. this park has no lights and it will get pretty dark walking between the stations.

Another good idea is to bring your mountain bike if you have one. It will make getting around much easier, besides you'll get your daily exercise as well. We're always thinking about our club members.

Festivities start about 9 AM Saturday morning after a brief breakfast get together to be announced at this month's meeting. The contest starts at 2PM sharp and goes to Sunday 2PM.

Please make an effort to attend for a couple hours to help operate, or put-up or take down some antenna's or tents.. etc. This is a club event and it takes the entire club's support to make it really fun.

Bob, KB9MS

## TomKimala KM4LB

## Easily forgotten rules to write by

*I try to keep up with the latest newsletter design and layout by subscribing to the Amateur Radio News Service Bulletin. Here are some hints to help you write better. Enjoy!*

- |   |  |   |
|---|--|---|
| 1 Avoid alliteration. Always.                               | 7 It is wrong to ever split an infinitive.   | 16 Understatement is always best.                             |
| 2 Prepositions are not words to end sentences with.         | 8 Contractions aren't necessary.   | 17 Exaggeration is a billion times worse than understatement. |
| 3 Avoid clichés like the plague. (They're old hat)          | 9 Foreign words and phrases are not apropos.   | 18 One-word sentences? Eliminate.                             |
| 4 Employ the vernacular.                                    | 10 One should never generalize.  | 19 Analogies in writing are like feathers on a snake.         |
| 5 Eschew ampersands & abbreviations, etc.                   | 11 Eliminate quotations. As Ralph Waldo Emerson once said, "I hate quotations. Tell me what you know." | 20 The passive voice is to be avoided.                        |
| 6 Parenthetical remarks (however relevant) are unnecessary. | 12 Comparisons are as bad as clichés.  | 21 Go around the barn at high noon to avoid colloquialisms.   |
|   | 13 Don't be redundant-, don't use more words than necessary-, it's highly superfluous.                 | 22 Even if a metaphor sings, it should be derailed.           |
|   | 14 Profanity sucks.  | 23 Who needs rhetorical questions?                            |
|   | 15 Be more or less specific.   |   |

via the ARNS

# Larry Pristavko, EW1AAA/UC3AAA - SK

On June 5, we received word via LY2BO, that Larry Pristavko, EW1AAA, ex-UC3AAA became a SK on May 30, with funeral services May 31. Larry had a history of heart trouble and it was a heart attack that took his life.



Larry wearing his "western hat" given to him by a club member in 1991.

Larry had visited Cary in 1991 and again in 1992 with his wife Lyda. He attended several CARC meetings and events and was well know by many local hams.

I spoke to a mutual friend K3JA, who

is traveling to Lithuania on June 18th. He has agreed to take any letters for Larry's family that anyone would like to send. Sak, LY2BO, will forward them to Lyda or Irene, Larry's daughter, Anyone wishing to write should address a letter to:

Lyda Pristavko  
P.O. Box 17  
220012 MINSK, Belarus

Enclose this letter in another envelope and mail it to:

Flavius Jankauskas K3JA  
2518 Eberly St.  
Hatboro, PA 19040

Flav must have these letters before June 18th and will insure that each letter will reach Lyda without the normal postal problems.

Tnx es 73, K4RKI

Send any photos, anecdotes, remembrances of Larry you would like published to the editor.

(Continued from page 1)

cartridge spools out from the inside creating a perfect launch nearly every time.



Photo tracking cartridge mounted into the handle at the front of the sling shot.

The combination of an inexpensive sling shot and the tracking cartridge produces accurate, high elevation line launches. I have a 30 meter tall tree in our front yard through which we successfully placed a line on the first try. The line crosses a branch at about the 25 meter point. Based on some trial launches using small stones, and comments from others, this method of line launching can probably be used for up to about 30 to 35 meters in height.

After launching the tracking line, tie one end of the line to a 1/8" nylon rope. Tape the knot down smooth and pull on the tracking line to haul the rope over the branch. Then use this rope to either haul up a stronger rope or mount your antennas directly to the nylon rope. Always use a ceramic insulator between the rope and the antenna.

Our sling shot was purchased at a sporting goods store. The tracking cartridge is available only from archery suppliers - check your phone directory under hunting or archery headings to locate a dealer. You might buy a spare tracking spool at the same time you buy the cartridge mount. Find oval fishing weights to tie onto the end of the tracking line for your launch at any sporting goods or boating store.

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Page 2 trivia answer: Z-signals

### BUMPER STICKERS:

*Forget about world peace.  
Visualize using your turn signal!*

*Give me ambiguity or  
Give me something else!*



The note on the back of this photograph from Larry (with hat) reads:

"Tom, this is field day Russian style...NO SMILES, hi hi."